

Application Serial No.: 09/709,935
Attorney Docket No. 032028-0311103

AMENDMENTS TO THE SPECIFICATION: identifying insertions and deletions.

Please insert the following new paragraph at page 1, line 1, prior to the paragraph entitled “Field of the Invention”:

Cross-Reference to Related Applications

This Application is a continuation of U.S. Application Serial No. 09/520,166, filed March 7, 2000 (now abandoned), which is a continuation of U.S. Application Serial No. 09/398,199, filed September 17, 1999 (now abandoned), which claims priority to U.S. Provisional Patent Application Serial No. 60/100,913, filed September 17, 1998.

Please replace the paragraph beginning at page 1, line 2, with the following rewritten paragraph:

Remote emissions system and method with improved ~~nitrous~~ nitrogen oxide (NO_x) detection, including processing to account for the presence of ambient NO_x.

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Please replace the paragraph beginning at page 6, line 15, with the following rewritten paragraph:

One embodiment of the present invention incorporates certain data processing routines conveniently chosen to increase the accuracy and validity of resulting NO_x concentrations. Figure 1 depicts a typical data plot that may result from an absorption measurement of NO_x. The Y axis contains radiation intensity values and the X axis contains radiation wavelength values. An absorption of radiation will typically appear as a dip in the signal at particular wavelengths. For example, absorption of NO will typically occur centered substantially around wavelengths of ~~326~~ 226 nm. In a known manner, exhaust emission data ~~is~~ are typically normalized or ratioed by comparison with another exhaust constituent (e.g., CO₂). Certain existing systems may ratio using data corresponding to a range of wavelengths indicated by bracket A on Fig. 1. As can be seen, this range includes many data points for which there is no significant absorption of NO_x. Thus, any noise or other inaccuracies present in these non-absorptive wavelengths may lead to erroneous results in determining the concentration of NO_x in the exhaust emissions. The present invention reduces errors of this sort by selecting a convenient range of wavelengths over which to ratio. For example, as shown in Fig. 1, a range of wavelengths, indicated by bracket B and substantially centered around an absorption dip may be used to calculate a ratio.